Fujitsu recommends Windows.

Data Sheet
FUJITSU CELSIUS R930 Workstation

Uncompromising Workstation Performance for Extreme Demands

Fujitsu's most performing workstation the CELSIUS R930 is designed to surpass all your expectations. This high-end dual processor workstation is individually configurable for the most power hungry 24/7 operating environments. Incorporating latest NVIDIA GRID™ graphics virtualization cards or Intel® Xeon Phi™ coprocessor cards, the CELSIUS R930 is well prepared for workstation virtualization and High Performance Computing. Comprehensive ISV certifications ensure smooth application operation.

Performance
Higher productivity
- Future Intel® Xeon® processors, high performing graphics subsystems, quad-channel memory technology and high-speed hard disk drives

Workstation virtualization in the datacenter
Ideal for workstation consolidation due to multiple users per workstation, increased data security and protection against theft or damage
- Rack-mountable and incorporating latest NVIDIA GRID™ or Intel® Xeon Phi™ graphics or compute cards

Reliable and Ergonomic
Noise-reduced system engineered in Germany and System stability for the complete lifecycle and 24/7 operation
- Optimized thermal management, high product standards thanks to top-quality components and comprehensive testing in certified in-house laboratories

Certification of workstation applications
Stability, compatibility and performance for the main workstation applications
- Comprehensive support for ISV applications and ease of integration into existing IT networks

Expandability
Excellent expandability for future demands
- Increased memory capacities of up to 512 GB, Up to three ultra-high-end or four mid-range graphics and eight hard disk drives

Components

Processor	Intel® Xeon® processor E5-2697v2 (12 cores, 2.70 GHz, 30 MB)
	Intel® Xeon® processor E5-2695v2 (12 cores, 2.40 GHz, 30 MB)
	Intel® Xeon® processor E5-2690v2 (10 Cores, 3.00 GHz, 25 MB)
	Intel® Xeon® processor E5-2687Wv2 (8 Cores, 3.40 GHz, 25 MB)
	Intel® Xeon® processor E5-2680v2 (10 Cores, 2.80 GHz, 25 MB)
	Intel® Xeon® processor E5-2670v2 (10 Cores, 2.50 GHz, 25 MB)
	Intel® Xeon® processor E5-2667v2 (8 Cores, 3.30 GHz, 25 MB)
	Intel® Xeon® processor E5-2660v2 (10 Cores, 2.20 GHz, 25 MB)
	Intel® Xeon® processor E5-2650v2 (8 Cores, 2.60 GHz, 20 MB)
	Intel® Xeon® processor E5-2650Lv2 (10 Cores, 1.70 GHz, 25 MB)
	Intel® Xeon® processor E5-2643v2 (6 Cores, 3.50 GHz, 25 MB)
	Intel® Xeon® processor E5-2640v2 (8 Cores, 2.00 GHz, 20 MB)
	Intel® Xeon® processor E5-2637v2 (4 Cores, 3.50 GHz, 15 MB)
	Intel® Xeon® processor E5-2630v2 (6 Cores, 2.60 GHz, 15 MB)
	Intel® Xeon® processor E5-2630Lv2 (6 Cores, 2.40 GHz, 15 MB)
	Intel® Xeon® processor E5-2620v2 (6 Cores, 2.10 GHz, 15 MB)
	Intel® Xeon® processor E5-2609v2 (4 Cores, 2.50 GHz, 10 MB)
	Intel® Xeon® processor E5-2603v2 (4 Cores, 1.80 GHz, 10 MB)
	Intel® Xeon® processor E5-1660v2 (6 Cores, 3.70 GHz, 15 MB)
	Intel® Xeon® processor E5-1650v2 (6 Cores, 3.50 GHz, 12 MB)
	Intel® Xeon® processor E5-1620v2 (4 Cores, 3.70 GHz, 10 MB)
	Intel® Xeon® processor E5-1607v2 (4 Cores, 3.00 GHz, 10 MB)
	Intel® Xeon® processor E5-1603 (4 Cores / 8 Threads, 2.80 GHz, 10 MB)
	Intel® Xeon® processor E5 family featuring Intel® vPro™ Technology 2nd Intel® Xeon® E5-16xx processor not possible
Operating systems	
Operating system	Windows 8.1 Pro 64-bit Windows 8 Pro 64-bit Windows 7 Professional 64-bit
Operating system compatible	Windows® Server 2012 Windows 7 Professional 32-bit Windows® XP Professional x64 Edition Linux
Operating system notes	Certified for Red Hat© Enterprise Linux Certified for SUSE Enterprise Desktop Certified for SUSE Enterprise Server Certified for Citrix XenServer 6.2 For some configurations third party drivers are currently not available or configuration restrictions may apply. Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com SCU ports are not supportet for Windows® XP 32bit (restriciton by Intel®). Therefore an additional storage controller (D2607 or D2616) is necessary.
Memory modules	4 GB (1 module(s) 4 GB) DDR3, ECC, 1,866 MHz, PC3-14900
	8 GB (1 module(s) 8 GB) DDR3, registered, ECC, 1,866 MHz, PC3-14900
	16 GB (1 module(s) 16 GB) DDR3, registered, ECC, 1,866 MHz, PC3-14900
	32 GB (1 module(s) 32 GB) DDR3, registered, ECC, 1,600 MHz, PC3-12800

Graphics	Ultra-high-end 3D: AMD FirePro™ W9100, 16 GB, 2816 stream processors, PCIe x16, 6x miniDP, 6x miniDP/DP Adapter
	Ultra-high-end 3D: NVIDIA® Quadro® K6000, 12 GB, 2,880 cores, PCIe x16, 1x Dual Link DVI-I, 1x Dual Link DVI-D, 2x DisplayPort
	Ultra-high-end 3D: NVIDIA® Quadro® 6000, 6 GB, 448 cores, PCIe x16, 1x DVI-I, 2x DisplayPort
	Ultra-high-end 3D: NVIDIA® Quadro® K5000, 4 GB, 1,536 cores, PCIe x16, 1x Dual Link DVI-I, DVI-D, 2x DisplayPort
	High-end 3D: AMD FirePro™ W8000, 4 GB, 1,792 stream processors, PCIe x16, 4 x DisplayPort
	High-end 3D: AMD FirePro™ W7000, 4 GB, 1,280 stream processors, PCIe x16, 4 x DisplayPort
	High-end 3D: NVIDIA® Quadro® K4000, 3 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: NVIDIA® Quadro® K2000D, 2 GB, 384 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® K2000, 2 GB, 384 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ W5000, 2 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Entry 3D: NVIDIA® Quadro® K600, 1 GB, 192 cores, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: NVIDIA® Quadro® 410, 512 MB, 192 cores, PCIe x16, 1x DVI-I, 1x DisplayPort
	Professional 2D: NVIDIA® NVS 510, 2 GB, 16 cores, PCIe 2.0 x16, 4x miniDP, 4x miniDP/DP Adapter
	Professional 2D: NVIDIA® NVS 315, 1 GB, 48 cores, PCIe 2.0 x16, 2x LFH59 (DP/DVI-I)
	Professional 2D: NVIDIA® NVS 310, 512 MB, 16 cores, PCIe 2.0 x16, 2x DisplayPort
	GPU computing card: NVIDIA® Tesla™ K20, 5 GB, 2,496 cores, PCIe x16
	GPU computing card: NVIDIA® GRID K1 16GB A, 16 GB, 768 cores, PCIe x16
	GPU computing card: NVIDIA® GRID K2 8GB A, 8 GB, 3,072 cores, PCIe x16
	Remote Graphics: CELSIUS RemoteAccess Dual Card, PCIe x1, 2x miniDP, PCoIP
	Remote Graphics: CELSIUS RemoteAccess Quad Card, PCIe x1, 4x miniDP, PCoIP
Personal Supercomputing	Coprocessor: Intel® Xeon Phi™ Coprocessor 3120A, PCIe x16
	Coprocessor: Intel® Xeon Phi™ Coprocessor 5110P, PCIe x16
Hard disk drives (internal)	SSD SATA III Premium, 512 GB, 2.5-inch
	SSD SATA III Premium, 256 GB, 2.5-inch
	SSD SATA III Premium, 128 GB, 2.5-inch
	SSD SATA III, 512 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch, SED bay
	SSD SATA III, 256 GB, 2.5-inch
	SSD SATA III, 128 GB, 2.5-inch, SED bay
	SSD SATA III, 128 GB, 2.5-inch
	HDD SATA III, 10,000 rpm, 1,000 GB, 2.5-inch, business critical
	HDD SATA III, 10,000 rpm, 500 GB, 2.5-inch, business critical
	HDD SATA III, 7,200 rpm, 4,000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 3,000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 2,000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 2,000 GB, 3.5-inch
	HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch
	HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch
	HDD SAS, 15,000 rpm, 300 GB, 2.5-inch
	HDD SAS, 10,000 rpm, 900 GB, 2.5-inch
	HDD SAS, 10,000 rpm, 600 GB, 2.5-inch
	HDD SAS, 10,000 rpm, 300 GB, 2.5-inch
Hard disk notes	*Disk imaging software of the customer must be 4k sector size / advanced format ready One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 24/7 ready (business critical HDDs required)

Drives (optional)	BD Triple Writer SATA slim (tray)	
	DVD-ROM	
	DVD Super Multi	
	MultiCard Reader 24in1 USB 2.0 3.5"	
SCSI / SAS Controller	RAID Contr BBU Upgrade for RAID 5/6 Ctrl	
	RAID 5/6 Ctrl. 6 Gbit/s 8 ports int. 512 MB Cache	
	RAID 0/1 Ctrl. 6 Gbit/s 8 ports int.	
	RAID 0/1 Ctrl. 6 Gbit/s 8 ports ext.	
Interface add on cards/components (optional)		
	WLAN 802.11 a/g/n (2x2), (dedicated regions only, not for Indonesia)	
	USB 3.0 PCIe x1	
	Serial Interface FH	
	Gigabit Ethernet PCIe x1, DS	
	eSATA Interface	
	Dual serial card PCIe x1	
	Dual 10 Gigabit Ethernet PCIe x8	
Interface add on/component note	1x eSATA interface already on board	
Base unit	CELSIUS R930	CELSIUS R930 power
Mainboard		
Mainboard type	D3118	
Formfactor	proprietary	
Processor	Intel® Xeon® processor E5-2600 family ()	
Chipset	Intel® C602	
Processor socket	Socket R	
Processor quantity maximum	2	
Memory slots	16 (8 per processor) DIMM (DDR3) registered	
Supported capacity RAM (max.)	512 GB	
Memory notes	In configurations with 4 GB and more the visible memory may be reduced to approximately 3.5 GB or less (for 32-bit operating systems) and configurations with 8 GB the visible memory may be reduced to approximately 7.5 GB or less (depending on system configuration). Large memory may lead to long boot times. When using a 32-bit operating system the maximum of memory might be 900 MB.	
LAN	2x Built-in 10/100/1,000 MBit/s Intel® 82579 LM and Intel® 82574L	
BIOS version	AMI Aptio 4.6	
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)	
Audio type	On board	
Audio codec	Conexant CX20642	
Audio features	High Definition Audio	
I/O controller on board		
Serial ATA total	7	
thereof SATA III	2	
thereof eSATA	1	
SATA RAID support	0, 1, 10, 5	
SAS Controller type	optional upgrade to 8 ports, Intel C606	
SAS RAID support	0, 1, 10	
Interfaces		
Audio: in (rear)	1	

Interfaces		
Audio: out (rear)	1	
Audio: in	1	
Audio: out	1	
Internal speakers	1	
USB 2.0 total	11	
USB 3.0 total	2	
USB front	4 (2x USB 3.0)	
USB rear	6	
USB internal	3, thereof 1 type A	
Mouse / Keyboard (PS/2)	1 / 1	
Ethernet (RJ-45)	2	
eSATA	1	
Interface Module notes	Anytime USB charge functionality	
Input device / components		
	Optical USB wheel mouse	
Input devices (optional)	Optical USB/PS2 tilt wheel mouse Space Explorer USB Keyboard	
Drive bays		
Drive bays total	12	
2.5-inch internal bays	8	
3.5-inch internal bays	4	
3.5-inch external bays	2	
5.25-inch external bays	2	
Drive bay notes	Up to 8x 2.5-inch HDDs (cold plug) and 1x 2.5-inch SSD or Up to 4x 3.5-inch HDDs (cold plug) and 1x 2.5-inch SSD or Up to 2x 2.5-inch and 2x 3.5-inch HDDs (cold plug) and 1x 2.5-inch SSD	
Slots		
PCI-Express 3.0 x4	1 x (312 mm / 12.29 inch) Full height	
PCI-Express 3.0 x4 (mech. x16)	1 x (312 mm / 12.29 inch) Full height	
PCI-Express 3.0 x16	4 x (312 mm / 12.29 inch) Full height (2x PCIe 3.0x16 per processor)	
PCI-Express 2.0 x4 (mech. x8)	1 x (140 mm / 5.51 inch) Full height	
PCI (32-bit / 33 MHz)	1 x (312 mm / 12.29 inch) Full height	
Electrical values		
Power consumption note	400 W depending on configuration	550 W depending on configuration
Rated voltage range	100 V - 240 V	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Operating voltage range	100 V - 240 V	100 V - 240 V
Operating line frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Max. output of single power supply	800 W up to 90% efficiency	1100 W up to 90% efficiency
Power factor correction/active power	active	active
Power supply output	2 graphics power rails (6pin connector / 17A@12V)	3 graphics power rails (6pin connector / 17A@12V)
Noise for standard configuration (HDD, ODD, FDD)		
Related Processors for noise	Intel® Xeon® E5-2643v2 w/ Nvidia® Quadro K4000	Intel® Xeon® E5-2643v2 w/ Nvidia® Quadro K4000
Standard noise emission	8x4 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74	8x4 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74
Standard noise notes / description	A-weighted sound power level Lwad (in B) / Workplace related A-weighted sound pressure level LpAm (in dB(A))	A-weighted sound power level Lwad (in B) / Workplace related A-weighted sound pressure level LpAm (in dB(A))
Standard noise operation mode: CPU 50% load	4.0 B / 23 dB(A) Bystander position	4.0 B / 23 dB(A) Bystander position
Standard noise operation mode: CPU 90% load	4.3 B / 26 dB(A) Bystander position	4.3 B / 26 dB(A) Bystander position

Noise for standard configuration (HDD, ODD, FDD)		
Standard noise operation mode: HDD load	4.0 B / 23 dB(A) Bystander position	4.0 B / 23 dB(A) Bystander position
Standard noise operation mode: Idle mode	3.9 B / 22 dB(A) Bystander position	3.9 B / 22 dB(A) Bystander position
Standard noise operation mode: ODD load	4.6 B / 29 dB(A) Bystander position	4.6 B / 29 dB(A) Bystander position
Standard noise operation mode: Office applications 2.0	3.9 B / 22 dB(A) Bystander position	3.9 B / 22 dB(A) Bystander position
Dimensions / Weight / Environmental		
Dimensions (W x D x H)	186 x 618 x 430 mm	
Operating position	Vertical / horizontal	
Weight	20 kg	
Weight notes	Actual weight may vary depending on configuration	
Operating ambient temperature	10 - 35 °C (50 - 95 °F)	
Operating relative humidity	5 - 85 % (relative humidity)	
Compliance		
Product	CELSIUS R930	CELSIUS R930 Power
Model	ETNA_L-D3118	
Germany	GS depending on configuration	
Europe	CE	
USA/Canada	FCC Class B FCC Class A (in combination with 32GB Memory or InfiniBand add on card) cCSAus	
Global	RoHS (EU & China) Medical EMC standard IEC60601-1-2 in combination with medical kit Microsoft Operating Systems (HCT / HCL entry / WHQL) WEEE (Waste electrical and electronic equipment) ENERGY STAR® 6.0 (dedicated regions, depending on configuration) EPEAT® Gold (dedicated regions)	
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates	
Additional Software		
Additional software (preinstalled)	Workplace Protect (secure authentication solution) McAfee Multi Access Security (anti-virus and internet security software; 60 days trial version) Microsoft Office (buy license to activate the pre-installed Microsoft Office)	
Additional software (optional)	Drivers & Utilities DVD (DUDVD) Windows® 8 and Windows® 7	
Security		
Physical Security	Kensington Lock support Eye for padlock Intrusion switch Integrated cabinet lock (optional)	
System and BIOS Security	Write protect option for the Flash EPROM Boot protection for floppy disk / CD drive and write protection for floppy disk drive Dynamic USB security for full hardware USB protection Control of all USB interfaces Trusted platform module (TPM 1.2) EraseDisk	
User Security	User and supervisor BIOS password Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional)	
Manageability		
Manageability technology	DeskUpdate Driver management iAMT 8.0 (depending on CPU)	

Manageability		
Manageability software	DeskView Client DeskView Instant BIOS Management DeskView Integration for Symantec Management Platform	
DeskView components	Inventory Management BIOS Management Driver Management Security Management Alarm Management	
Supported standards	WMI BootP (made4you) PXE WoL (Wake on LAN)	
Manageability link	http://www.fujitsu.com/fts/manageability	
Miscellaneous		
	Rack mountable (5U)	Rack mountable (5U)
Spare part availability	5 years	5 years
Packaging information		
Packaging dimension (mm)	394 x 730 x 578 mm	394 x 730 x 578 mm
Packaging dimension (inch)	15.51 x 28.74 x 22.76 inch	15.51 x 28.74 x 22.76 inch
Max. quantity / pallet	11	11
Packaging notes	printed user documentation is bleached in chlorine free process	printed user documentation is bleached in chlorine free process
Warranty		
Standard Warranty	3 years (depending on country)	
Service level	Bring-In / Onsite Service (for countries within region FTS CEMEA&I, for all other countries depending on local regulations, minimum: 3 years material warranty)	
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty	
Product Support Services - the perfect extension		
Recommended Service	9x5, Response Time: Next Business Day	
Spare Parts availability	5 years after end of product life	
Service Weblink	http://www.fujitsu.com/fts/services/support	

Recommended Accessories

Display P27T-7 LED		Enjoy perfect picture quality with 3.7 Mio pixels, outstanding ergonomics and usability as well as comfortable energy saving solutions of this 68.5 cm (27-inch) widescreen FUJITSU P Line Display. Energy Efficiency Class: A	Order Code: S26361-K1442-V140
Display P24W-7 LED		If you're a pixel, color and performance-hungry professional using demanding applications, the FUJITSU P24W-7 LED Display is the perfect choice. The display provides outstanding picture performance thanks to a cutting-edge graphic panel. It also boasts unique and innovative features such as our patent-applied Presence Sensor technology and the Always Available Powered USB Hub. Energy Efficiency Class: A+	Order Code: S26361-K1498-V140
Blue LED Mouse GL9000		Blue LED Mouse GL9000 comes in a slim design with proven Fujitsu engineering quality. The state-of-the-art blue LED sensor enables ultra precise switchable resolution at 1,000, 1,500 and 2,000 dpi. Blue LED Mouse GL9000 makes your life easier because it's tailor-made for right handed users. It just feels great in your hand.	Order Code: S26381-K438-L100

SpaceMouse™ Pro		Using the SpaceMouse™ Pro 3D mouse to navigate 3D models or environments is as simple as holding them in your hand. A slight movement of the controller cap delivers easy and precise control. SpaceMouse™ Pro is a companion to the traditional mouse and is operated with the free hand. Your traditional mouse hand is free to select, create and edit.	Order Code: S26381-K459-L100
Keyboard KB900		The KB900 is a very flat keyboard with extra low keys and spill-resistant protection. The elegant design and top-quality construction makes the KB900 the ideal input device for any PC or Notebook user. If you accidently spill some water or coffee onto the keyboard, this special construction helps the liquid to flow away.	S26381-K560-L4** (**: Country specific variation)

More information

Fujitsu OPTIMIZATION Services

In addition to the FUJITSU CELSIUS R930, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

More information

To learn more about the FUJITSU CELSIUS R930, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/CELSIUS

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment

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2014-12-16 CE-EN

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